

Safe Handling of Food and Utensils After a Flood

Floodwaters may carry silt, raw sewage, oil or chemical waste which can make storm-damaged foods unsafe to eat. If you have a question about the safety of any item, dispose of it. Otherwise keep the following points in mind:

- Discard the following foods if floodwater has covered, dripped on or seeped into the package: fresh produce; meat, poultry, fish and eggs; paper, cloth, fiber, cardboard boxes, even if the contents seem dry, including cereals, pasta products, rice, salt and any sealed packages of crackers, cookies or mixes within a larger paper box; foods with cardboard seals such as mayonnaise and salad dressing; foil or cellophane packages; food in glass jars, including unopened jars with waxed paper, foil, cellophane or cloth covers; home-canned foods (Some tightly sealed home-canned foods may be safe depending on conditions. Contact a food preservation specialist or local health department for advice.); preserves sealed with paraffin; spices, seasonings and extracts; foods, liquids or beverages in crown-capped bottles or containers with pull-tab tops, corks or screw caps; all opened containers and packages; foods in bags or canisters; cans that are dented, leaking, bulging or rusted; and cans that have been tossed about and are far from their normal storage spot.
- Destroy all foods that were covered by water which may have been contaminated with industrial waste, including foods sealed in unopened cans.
- Cans of food that do not have dents or rust can be saved if they are handled properly before they are opened. Be sure to wash and sanitize undamaged containers before opening the can. For added safety boil food before using.
- To disinfect undamaged cans remove paper labels (paper can harbor bacteria) and re-label with a permanent marker. Then wash the containers in a strong detergent solution. Use a brush to remove any dirt and silt. Rinse the scrubbed containers. Thorough removal of dirt and silt and rinsing are extremely important because the disinfecting action of the chlorine solution is diminished by any substances left on the containers.
- Wear rubber gloves to protect your hands during the disinfection process. Strong detergent and bleach solutions can be hard on bare hands.
- Immerse the clean, rinsed containers in a lukewarm (75 to 120 degrees F) solution of chlorine for two minutes. Use 2 tablespoons of 5% chlorine bleach per gallon of water. Chlorine loses its effectiveness when it is in a solution and open to the air or when it comes in contact with unclean materials so it is important to change this disinfecting solution frequently. It must be dumped if you see the water starting to lose its clarity. Remove the containers from the bleach solution and allow to air dry before opening or storing. Use disinfected containers as soon as possible because they may rust.



NDSU Extension Service, North Dakota State University of Agriculture and Applied Science, and U.S. Department of Agriculture cooperating. Sharon D. Anderson, Director, Fargo, North Dakota. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. We offer our programs and facilities to all persons regardless of race, color, national origin, religion, sex, disability, age, Vietnam era veterans status, or sexual orientation; and are an equal opportunity employer.

This publication will be made available in alternative format upon request to people with disabilities (701) 231-7881.

■ Wash all dishes and utensils in hot soapy water with a brush to remove dirt. Sanitize glass, ceramic and china dishes, glass baby bottles and empty canning jars the same way as for undamaged cans. Dishes with deep cracks should be thrown away. Metal pans and utensils can be disinfected by immersing them in water and boiling for 10 minutes.

■ Discard porous non-food items that are used with food or put into the mouth and items made of hard rubber, plastic or other flexible (porous)

materials, such as baby bottle nipples, pacifiers, and plastic or wooden dishes and utensils.

■ Kitchen utensils made of iron will probably be rusted. Remove the rust by scouring with steel wool. Disinfect with the bleach solution and re-season. To do this, apply a light coat of unsalted fat or oil and place in a 350 degree oven for about an hour.

*Sources: USDA, Florida Extension Service, Nebraska Extension Service, Missouri Extension Service, Pat Beck, NDSU Extension Nutrition Specialist, 701-231-7281
April 1997*

Make Sure Your Water Is Safe

After a flood you must assume that all water sources are contaminated until proven safe. Purify all water used for drinking, cooking, and washing eating and cooking utensils. Also purify the water used for washing hands, body, kitchen and bathroom surfaces. Do not use water that has a dark color, has an odor or contains floating material.

Water for Consumption

■ If you suspect your drinking water is contaminated (for example surface water has gotten into your well) or you have received an order to boil water for drinking and cooking:

- Bring water to a rolling boil for 10 minutes.
 - To reduce the flat taste of boiled water, pour the water back and forth several times between two clean containers.
- If you don't have the ability to boil water, disinfect with unscented chlorine bleach:
 - Add 1 teaspoon for each 2 gallons of water.
 - Stir the water thoroughly after adding chlorine.
 - Allow chlorinated water to stand for 30 minutes.
- Instead of chlorine, you can use tincture of iodine:
 - Add 12 drops per gallon of water.
 - Stir the water thoroughly after adding iodine.
 - Allow iodized water to stand for 30 minutes.

Water for Washing Hands, Body, Kitchen and Bathroom Surfaces

- Always use clean or purified water to wash any parts of the body that have come in contact with surfaces contaminated by floodwaters.
- Water in water pipes and toilet flush tanks (not bowls) is safe to drink if the valve on the main water line was closed before the flood.

Making a Chlorine Disinfecting Solution

Household bleaches contain 2 to 6 percent chlorine. The amount of bleach to add to water depends on the percent of chlorine it contains. Check the bottle label and follow these guidelines:

Percent Chlorine in Bleach	Add This Much One Quart Water	Bleach To One Gallon Water
2%	2 teaspoons	2 tablespoons
4%	1 teaspoon	1 tablespoon
6%	½ teaspoon	2 teaspoons